

# Work Order ID 51423

August 24, 2009 10:14:39 AM



Page 1

Item ID: D6102-010

Accept



Setup Start



Revision ID: D

Stop



Item Name: Saddle Billet

Start Date: 8/31/09 Start Qty: 16.00



Cust Item ID:

Required Date: 9/09/09 Req'd Qty: 16.00



Customer:

Reference:

Approvals:

Process Plan: *W*

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D6102

Rev D

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: *10241* (a) Description: Aluminum Billet (b) 7.950" x 8.250" x 2.500" thick (c) Tolerance on all dimensions is +0.06/0.00 (d) Grain direction along 7.950" length (e) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8) (f) Material release certifi

*u 9.08.24*

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

*10/9/2 (14)*

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Check certification to Dwg D6102 for compliance

*=> 5070102*

*(+66)*

*f*

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August 24, 2009 10:14:39 AM



Page 2

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Process Plan:

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Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

DIP 09/09/02

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/09/03 JH

u 09/09/03

# Picklist Print

August 24, 2009 10:14:38 AM

Page 1

Work Order ID: 51423

Parent Item: D6102-010RevD

Parent Item Name: Saddle Billet

Comments:



Start Date: 8/31/09

Required Date: 9/09/09

Start Qty: 16.00

Required Qty: 16.00

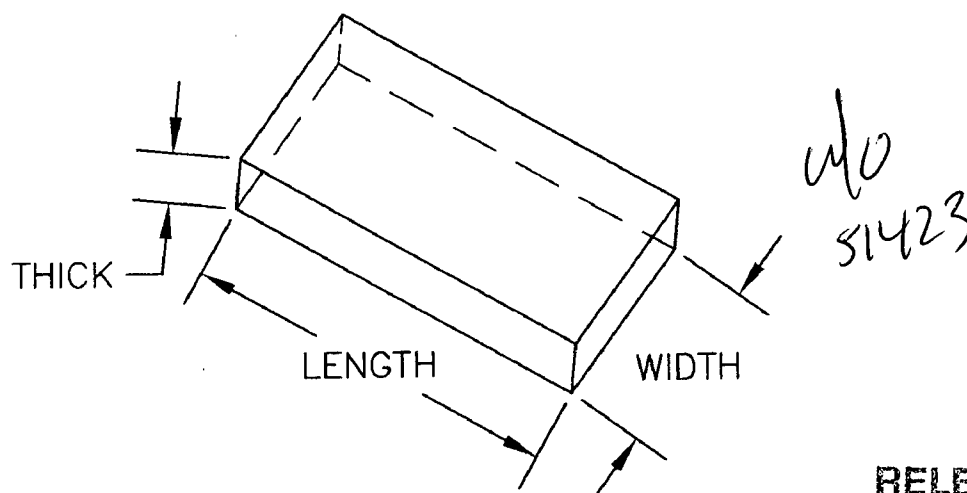
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6102-010PRevD		Purchased	No			110	Each	0.0000	16.0000			
6061-T6 8.25x7.95x2.5												

*8/31/09* *(16)*



DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

## SPECIFICATION CONTROL DRAWING



RELEASED

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

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**Magna Stainless**  
5775 Kieran St, Saint-Laurent, Quebec H4S 0A3  
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

# PACKING LIST

I016180

Page: 1 of 1

SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET


SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

HAWKESBURY, ON  
K6A 1K7  
Contact: LINDA

HAWKESBURY, ON  
K6A 1K7  
Ship Terms: PREPAID

MTR:Y

SPECIAL INSTRUCTIONS

Currency		Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS		ERYCK BLAIS	(613) 632-5200	(613) 632-1053	PO10241	
Sales Order	Terms		Ship Via	Date Ordered	Date Required	Date Shipped
W017366	NET 30 DAYS 		NIR:R-557065-1	08/24/09	08/31/09	09/02/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
16		PC	ALUMINUM - LB 6061-T6 2 1/2" X 8.250 X 7.95			16
			16 LB / 16 PC	L030775	622276	16
8		PC	7.95 ON THE GRIAN 6061-T6 2 1/2" X 8.250 X 6.500			8
			4 LB / 4 PC	L030779	15268	4
			2 LB / 2 PC	L030780	15405	2
			2 LB / 2 PC	L030781	622270	2
			6.500 ON THE GRAIN			
skids: 2				Total Weight:		24 LB

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Signature: \_\_\_\_\_



## INSPECTION CERTIFICATE № 09.10502

EN 10204 - 3.1



Consigner: KAMENSK URALSKY METALLURGICAL WORKS 5, Zavodskaya Str., Kamensk Uralsky, Sverdlovsk Region, 623405, Russia Tel: (3439) 39 62 22 Fax: (3439) 39 50 68				JOINT STOCK COMPANY						
Consignee:				Quantity: 3						
Contract number: N11234-S Article number: P90420DK004				Net Weight, kg.: 2326						
Specification No: N11234 Lot No: 1 Package No: 604571, 604572										
Description of Goods: Plates				Requirements on the Products:						
Grade of Product		Dimensions, inch/mm		Material conforms to quality of alloy: 8061 T651						
		2.5"x48.5"x144.5" 83.500X1231.9X3670.3		Product conforms to all requirements of ASTM-B209-07 AMS-QQ-A250/11AMS4027M. This product conforms to European Union RoHS Directive 2002/95/EC						
Mechanical Properties										
The Condition of Tested Standards	Lot Number	Cast Number	Number of Tests	Tensile Strength		Yield Strength (0.2% offset)		Elongation %		Hardness, HB
				ksi	ksi	ksi	ksi	min	max	
Required				min	max	min	max	min	max	
	822276	13-4801	4	42.0	46.5	35.0	41.4	6.0	11.5	0.00
Chemical Composition, %										
Element	Silicon Si	Iron Fe	Copper Cu	Manganese Mn	Magnesium Mg	Chromium Cr	Nickel Ni	Zinc Zn	Titanium Ti	Zirconium Zr
Required	0.4-0.8	0.7	0.15-0.40	0.15	0.8-1.2	0.04-0.35	-	0.20	0.15	-
Contents	0.82	0.4	0.19	0.05	1.0	0.06	-	0.03	0.09	-
Element	Ti+Zr	Na	Tl Sn	Bismuth Bi	Platinum Pt	Mn+Cr	Ca	Other Elements		Al
								Each	Total	
Required	-	-	-	-	-	-	-	0.05	0.15	remainder
Contents	-	-	-	-	-	-	-	0.05	0.15	remainder
Other Tests										
Method	Macro- structure	Micro- structure	USI	Electro- conductivity	Contents H2 of metals cm <sup>3</sup> /100gr		Mercury - Free "Russia is country of mercy and manufacture"			
Result	-	-	-	-	0.25					

On behalf:

KUMW, JSC.

Date:

12.05.09

Inspector:

L.V. Belousova

Inspection Department engineer:

N.V. Alekhina



Inc 09-02-09

S90824DG004-1 MAGNA STAINLESS PO: P006478 Part #:

16.00PC

P006478-622276

P006478-15268

1, Zavodskaya Str. 347045 Belaya Kalitva Rostov region Russia		Open Joint Stock Company «Alcoa Metallurg Rus» <b>INSPECTION CERTIFICATE</b> EN 10204-3.1										№ 4737/0998 Date 04.07.08				
<b>CUSTOMER</b> Alcoa-Köfem Kft. Versei u. 1-15 Szekesfehervar HU- 8000 Hungary  <b>CONSIGNEE</b> Newell street, Southington, CT 06489, USA		<b>CONTRACT №</b> 002/2008		<b>APPENDIX №</b> 30810098		<b>ORDER №</b> AM 13211/P80506DK 005										
		<b>Description of Goods</b> Aluminium Plates <b>Alloy and Temper</b> 6061 T651 <b>Lot №</b> 15268										<b>Standard</b> ASTM B 209-07, ANSI-H35.2-2006, AMS-QQ-A-250/11, AMS 4027M <b>Dimension</b> 2,5000*60,500*144,500 <b>Net Weight</b> 1964 kg 4330 lbs <b>Qt. of packages</b> pcs <b>Gross Weight</b> 2034 kg 4485 lbs				
		<b>MECHANICAL PROPERTIES</b>		<b>Tensile Strength</b>		<b>Yield Strength</b>		<b>Elongation</b>								
		Units		KSI		KSI		El %								
		Nominal requirements		min max		42,0 35,0		6								
		Test results		46,3-46,7		39,4-40,1		13,4-14,0								
<b>CHEMICAL COMPOSITION, %</b>																
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti			Impurities		Al	
Nominal requirements		min	0,40		0,15	0,8	0,04							Each	Total	
		max	0,80	0,70	0,40	0,15	1,2	0,35		0,25	0,15					
Test results		1-569	0,59	0,39	0,28	0,10	0,98	0,20		0,087	0,036					
Cast №																
"melted & manufactured in the Russian Federation"  It is hereby certified that the above material is manufactured in compliance with the specified standards and meets the stipulated requirements																
 <div style="display: inline-block; vertical-align: middle;">           Quality Control Inspector Чебова М.Р.  </div> <div style="float: right; border: 1px solid black; padding: 2px; margin-top: 10px;">             K-31 19           </div>																

Формы ИСКДТ № ОП.002/07

INC 09-02-09


S90824DG004-2 MAGNA STAINLESS PO: P006478 Part #:

4.00FC

200 6478 - 15405

S90824DS004-2 MAGNA STAINLESS PO: P006478 Part #: 2.00PC

INC 09-02-09

1, Zavodskaya Str. 347045 Belaya Kalitva Rostov region Russia		<b>Open Joint Stock Company «Alcoa Metallurg Rus»</b> <b>INSPECTION CERTIFICATE</b> EN 10204-3.1										№ 5239/1168 Date 01.09.08						
<b>CUSTOMER</b> Alcoa-K6fem Kft. Verseci u. 1-15 Szekesfehervar HU- 8000 Hungary  <b>CONSIGNEE</b> Newell street, Southington, CT 06489, USA		CONTRACT № 002/2008		APPENDIX № 30810098				ORDER № AM 13211/P80506DK 005										
		Description of Goods Aluminium Plates								Standard ASTM B 209-07, ANSI-H35.2-2006, AMS 4027M								
		Alloy and Temper 6061 T6S1								Dimension 2,5000*60,500*144,500								
		Lot № 15405								Net Weight 982 kg 2165 lbs Ql. of packages pcs Gross Weight 1052 kg 2320 lbs								
		<b>MECHANICAL PROPERTIES</b>		Ultimate Strength		Yield Strength		Elongation										
		Units		KSI		KSI		El %										
		Nominal requirements		min		max		min										
				42,0		35,0		6										
		Test results		46,2		38,4		14,0										
<b>CHEMICAL COMPOSITION, %</b>																		
			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti					Impurities		Al
																Each	Total	
Nominal requirements		min	0,40		0,15		0,8	0,04										
		max	0,80	0,70	0,40	0,15	1,2	0,35		0,25	0,15							
Test results		1-587	0,62	0,38	0,28	0,10	1,02	0,21		0,043	0,053							
Cert №																		
"melted & manufactured in the Russian Federation"  It is hereby certified that the above material is manufactured in compliance with the specified standards and meets the stipulated requirements																		
										Quality Control Inspector Авснерич		K-58 19						







## INSPECTION CERTIFICATE № 09.11210

EN 10204 - 3.1



Consigner: KAMENSK URALSKY METALLURGICAL WORKS JOINT STOCK COMPANY 5, Zavodskaya Str., Kamensk Ural'sky, Sverdlovsk Region, 623405, Russia Tel: (3438) 39 52 22 Fax: (3438) 39 50 68										
Consignee:					Quantity: 1					
Contract number: N11234-S P90420DK004					Net Weight, kg.: 1159					
Article number:					Specification No: N11234 Lot No: 1 Package No: 804827					
Description of Goods: Plates					Requirements on the Products:					
Grade of Product			Dimensions, inch/mm		Material conforms to quality of alloy: 8031 T851					
			2.5"X72.5"X144.5" 63.500X1841.5X3670.3		Product conforms to all requirements of: ASTM-B209-07/AMS-QQ-A250/11AMS4027M. This product conforms to European Union RoHS Directive 2002/95/EC					
Mechanical Properties										
The Condition of Tested Standards	Lot Number	Cast Number	Number of Tests	Tensile Strength		Yield Strength (0.2% offset)		Elongation, %		Hardness, HB
				ksi	min	max	ksi	min	max	
Required				42.0	-	35.0	-	8.0	-	
	622270	13-4800	4	47.0	47.8	43.0	43.8	9.5	12.0	
Chemical Composition, %										
Element	Silicon Si	Iron Fe	Copper Cu	Manganese Mn	Magnesium Mg	Chromium Cr	Nickel Ni	Zinc Zn	Titanium Ti	Zirconium Zr
Required	0.4-0.8	0.7	0.15-0.40	0.15	0.8-1.2	0.04-0.35	-	0.25	0.15	-
Contents	0.63	0.3	0.17	0.05	1.0	0.08	-	0.04	0.09	-
Element	Ti+Zr	Na	Ti Sn	Bismuth Bi	Plumbum Pb	Mn+Cr	Cu	Other Elements		Al
								Each	Total	
Required	-	-	-	-	-	-	-	0.05	0.15	remainder
Contents	-	-	-	-	-	-	-	0.05	0.15	remainder
Other Tests										
Method	Macro-structure	Micro-structure	USI	Electro-conductivity	Contents H2 of metals cm3/100gr		Mercury - Free "Russia is country of melt and manufacture"			
Result	-	-	-	-	0.18					

On behalf:

KUMW, JSC.

Date:

18.05.09

Inspector:

K.V. Ziryayeva

Inspection Department engineer:

N.V. Alekhina

Inc 09-02-09

S90824DG004-2 MAGNA STAINLESS PO: P006478 Part #:

2.00PC

P006478-622270